

REMARKS

Claims 1, 87, and 88 have been amended to claim inhibition and delay of apoptosis and inhibition and suppression of activation of eIF-5A in rat and corpus luteal cells. Claim 11 has been cancelled. Claim 89 was previously presented and is in accord with each of the Examiner's suggestions. Accordingly, claims 1 and 87-89 are pending in this application.

Rejection under 112, first paragraph (written description)

The Examiner has rejected claims 1, 11, and 87-89 for failure to comply with the written description requirement. The Examiner states that "SEQ ID NO: 1 is not considered to provide adequate support for methods of using a genus of molecules that is both large and varied." Additionally, the Examiner states: "Neither applicant's specification nor the prior art actually disclose any correlation between the structure of the instant eIF-5A of SEQ ID NO: 1, and the claimed function of being apoptosis-induced." However, Examiner states that "Applicants have disclosed a single rat eIF-5A molecule, depicted at SEQ ID NO: 1, that is induced by apoptosis." Additionally, Examiner rejects claim 1 for use of the term "an agent" because "the genus of inhibitors is very broad, and Applicants have not disclosed a representative sample of agents which may act as inhibitors of activation of apoptosis induced eIF-5A."

Applicants have amended claims 1 and 88 to encompass methods of inhibiting or delaying apoptosis in rat cells or corpus luteal cells. Additionally, Applicants have amended claim 87 to encompass methods of inhibition or suppression of activation of apoptosis-induced eIF-5A in rat cells or corpus luteal cells. Furthermore, claim 89 as previously presented satisfies the Examiner's written description concerns because the Examiner has specifically stated that "Applicants have disclosed a single rat eIF-5A molecule, depicted at SEQ ID NO: 1, that is induced by apoptosis." Finally, Applicants have amended claim 1 to encompass agents selected from a group capable of inhibiting an

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apoptosis-induced DHS catalyzed chemical reaction, namely spermidine, 1,3-Diamino-propane, 1,4-Diamino-butane (putrescine), 1,7-Diamino-heptane, and 1,8-Diamino-octane.

Applicant respectfully submits that the present claim amendments under this ground of rejection moot. Further, the claims encompass methods for which the Applicants have presented data demonstrating not only the sequence of an apoptosis-induced eIF-5A molecule, but also reduction of apoptosis-induced eIF-5A and inhibition of activation of apoptosis-induced eIF-5A resulting in inhibition or delay of apoptosis both *in vivo* and *in vitro*. *See* Application Exs. 2, 5 and 6.

Accordingly, Applicants respectfully request withdrawal of this ground of rejection.

Rejection under 35 U.S.C. 112, first paragraph (enablement)

The Examiner has rejected claims 1,11, 87, and 88 under 35 U.S.C. 112, first paragraph for failure to enable the invention. The Examiner has acknowledged that the specification provides enabling support for “administration of spermidine to corporal luteum cells” and for “spermidine injected into rats.” Additionally, the Examiner has asserted that “applicants have disclosed only 5 species of the genus of polyamines.” These five species are now expressly encompassed by amended claim 1. Thus, the Examiner acknowledges that the presently amended claims 1, 87, and 88 are enabled.

As for claim 89, the Examiner asserts “claim 89 is considered to be enabled, however, because the teachings of the specification show that spermidine injected into rats does inhibit apoptosis.” The Applicants agree. The Applicants respectfully submit the present claim amendments under this ground of rejection moot and request withdrawal of this rejection.

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CONCLUSION

Applicants submit that the claims are in condition for allowance. Although it is believed that no fees are necessary for the filing of this paper, Applicants authorize the Commissioner to charge the requisite fee for such extension as well as any other fee due or credit any overpayment arising from this communication to Deposit Account No. 11-0600.

Respectfully submitted,

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